

David M. Rasmussen Jr. (D.J.)

GFDL/ NOAA

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EDUCATION

M.S. Civil and Environmental Engineering, 2013 (expected)
University of California—Davis

B.S. Atmospheric and Oceanic Science, 2009
University of Wisconsin—Madison

Adviser: Michael C. Morgan

Thesis: *An analysis of climate change's impacts on future wind energy production in California*

Thesis Adviser: Tracey Holloway

RESEARCH EXPERIENCE

Geophysical Fluid Dynamics Laboratory/ National Oceanic and Atmospheric Administration—Research Assistant (2010 – Fall 2011)

Princeton University Forrestal Campus, Princeton, NJ

- Topics: global chemistry-climate model evaluation, characterizing policy relevant background surface ozone variability over the United States
- Adviser, Arlene Fiore

Antarctic Meteorological Research Center—Research Assistant (2008 – 2010)

Space Science and Engineering Center, Madison, WI

- Topics: high wind event climatology, trend analysis of meteorological variables at the South Pole, animation of tabular iceberg movement
- Advisers, Matthew A. Lazzara, Linda M. Keller

Center for Sustainability and the Global Environment—Research Assistant (2009 – 2010)

University of Wisconsin at Madison, Madison, WI

- Topic: regional climate model evaluation, assessing climate change impacts on wind energy
- Adviser, Tracey Holloway

Nelson Institute for Environmental Studies—Informal Consultant (Summer 2009)

University of Wisconsin at Madison, Madison, WI

- Topic: wind resource assessment in support of energy policy analysis
- Requestor, Greg F. Nemet

REFEREED PUBLICATIONS

Rasmussen D.J., T. Holloway, and G.F. Nemet, 2011: Opportunities and Challenges in Assessing Climate Change Impacts on Wind Energy – A Critical Comparison of Wind Speed Projections in California. *Environ. Res. Lett.* **6** 024008 doi:10.1088/1748-9326/6/2/024008

Rasmussen D.J., A.M. Fiore, V. Naik, L.W. Horowitz, M.G. Schultz, and S.J. McGinnis. Surface ozone-temperature relationships in the eastern US: A monthly climatology for evaluating chemistry-climate models *Atmos. Environ.*[submitted]

UNREFEREED PUBLICATIONS

Rasmussen D.J., L.M. Keller, and M.A. Lazzara, 2010: A 20-year assessment of the frequency and intensity of McMurdo area high wind events. Preprints, *5th Antarctic Meteorological Observation, Modeling, and Forecasting Workshop*, Columbus, OH.

Rasmussen D.J., 2009: An analysis of climate change impacts on future wind energy production in California (undergraduate thesis) The University of Wisconsin, Madison, WI, 70 pp.

PRESENTATIONS

Evaluating surface ozone-temperature relationships over the eastern US in chemistry-climate models. **Geophysical Fluid Dynamics Laboratory**, oral presentation, 17 August 2011, Princeton, NJ.

Evaluating the ozone-climate interaction over the eastern U.S. in the GFDL AM3. **Dept. of Atmospheric and Oceanic Science, Princeton University**, oral presentation, 18 April 2011, Princeton, NJ.

A critical evaluation of wind speed projections for California. **Second Conference on Weather, Climate, and the New Energy Economy**, poster, 26 January 2011, Seattle, WA.

Antarctic meteorological data: access, distribution, and challenges. **27th Conference on Interactive Information Processing Systems (IIPS)**, oral presentation, 27 January 2011, Seattle, WA.

A 20-year assessment of the frequency and intensity of McMurdo area high wind events. **5th Antarctic Meteorological Observation, Modeling, and Forecasting Workshop**, oral presentation, 12 July 2010, Columbus, OH.

An analysis of climate change impacts on future wind energy production in California, **University of Wisconsin Undergraduate Symposium**, poster, 15 April 2010, Madison, WI.

TECHNICAL SKILLS

Languages: shell scripting, experience with FORTRAN 77/90, C++, HTML

Analysis/ Visualization: IDL, MATLAB, NCAR Command Language, GEMPAK, Maple, GARP, experience with Vis5D, Ferret, and McIDAS X, V

HONORS/AFFILIATIONS

American Meteorological Society

American Meteorological Society, Energy Committee; term 2011 – 2014

American Geophysical Union

Eagle Scout, Boy Scouts of America